

Amendment and Response

Applicant: Jenoe Tihanyi

Serial No.: 10/806,958

Filing Date: March 23, 2004

Docket: I434.105.101/IFT976US

Title: LATERAL FIELD-EFFECT-CONTROLLABLE SEMICONDUCTOR COMPONENT FOR RF APPLICATIONS

REMARKS

The following remarks are made in response to the Office Action mailed August 18, 2005. Claims 2, 3, 14, and 15 have been cancelled. Claims 1-20 were rejected. With this Response, claims 1, 4-8, 10, 12, 13, and 16-19 have been amended. Claims 1, 4-13, and 16-20 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1-7, 12, 13, 14, 15, 16, 17, and 18 under 35 U.S.C. § 102(b) as being anticipated by the Yasuhara et al. EP Patent No. 1073123.

Claims 1 and 13 have now been amended to include limitations of claims 2 and 3 and 14 and 15, respectively. Specifically, claims 1 and 13 each now specify that the plurality of auxiliary electrodes are formed in *pillar-type fashion*. This is not taught or suggested in the art of record.

The Yasuhara et al. reference referring to Figures 1 to 4 describes a semiconductor device comprising a drift zone 6 in which a number of trenches 12 are formed. These trenches extend in a lateral direction between a source and body zone 3, 2 and a drain zone 5. The trenches are filled with SIPOS, which is a high resistance polycrystalline silicon (see column 5, lines 34-36). The SIPOS material is connected to a source electrode 7 at a source end of trenches 12, and it is connected to a drain electrode 8 at the drain end of the trenches 12.

In opposite to the present invention “electrodes” formed from the SIPOS material of the Yasuhara reference are plate-shaped, while auxiliary electrodes of the present invention are pillar-shaped. Applicant respectfully disagrees with the Examiner’s argument on page 3, third paragraph, that the Yasuhara reference would teach auxiliary electrodes (second drive electrodes) having a pillar-type fashion. Figure 4 is a cross-sectional view taken along lines IV-IV of Figure 1. Figure 4 therefore is a cross-sectional view of plate-shaped electrode, not a pillar-type.

Furthermore, it would not be obvious for the one skilled in the art to reduce the plate-shaped electrodes of the Yasuhara reference to pillar-shaped auxiliary electrodes of the present invention. The electrodes 14 of the Yasuhara reference are connected to the source electrode or

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the gate electrode at one end of the trenches (see column 4, line 47) and is connected to the drain zone at the other end of the trenches (see abstract). An extension of these electrodes 14 over a certain length is required to absorb a voltage difference between the gate or source potential at one side of the trench and the drain potential at the other side of the trench. Reducing the plate-shaped electrodes of the Yasuhara reference to a pillar form would be equivalent to short circuiting source or gate and drain.

In opposite to the electrodes of the Yasuhara reference the auxiliary electrodes of the present invention are only connected to one potential, which could be source potential.

Therefore, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection to claims 1-7, 12, 13, 14, 15, 16, 17, and 18, and request allowance of these claims.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 8, 9, 10, 11, 19, and 20 under 35 U.S.C. § 103(a) as being unpatentable over the Yasuhara et al. EP Patent No. 1073123 as applied to claims 1-7, 12, 13, 14, 15, 16, 17, and 18, and further in view of the Gajda et al. U.S. Publication No. 2003/0042556.

Since claims 8, 9, 10, 11, 19, and 20 each depend from independent claims 1 and 13, which are now believed to be in allowable form, the are also in condition for allowance.

Therefore, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103 rejection to claims 8, 9, 10, 11, 19, and 20, and request allowance of these claims.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1, 4-13, and 16-20 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1, 4-13, and 16-20 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

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The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed Paul P. Kempf at Telephone No. (612) 767-2502, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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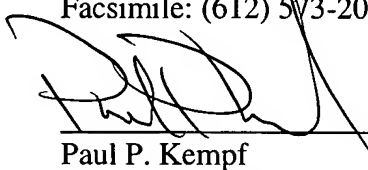
Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 17 day of November, 2005.

By 
Name: Paul P. Kempf